

# **CLAIM AMENDMENTS**

## **Claim Amendment Summary**

### **Claims pending**

- Before this Amendment: Claims 1-9, 30-47 and 55-57.
- After this Amendment: Claims 1-9, 30-45 and 55-57.

**Non-Elected, Canceled, and Withdrawn claims:** Claims 10-29 and 46-54.

**Amended claims:** Claims 1, 9, 30 and 44.

**New claims:** Claims 58 and 59.

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## **Claims:**

**1. (Currently Amended)** A method comprising:

splitting a scene into one or more coherent layers, wherein:

each coherent layer of the scene has a corresponding plane equation to represent a local geometry of that coherent layer; and

the one or more coherent layers in combination represent a single plane of the scene;

propagating boundaries of the coherent layers across a plurality of frames corresponding to the scene; and

refining the splitting to present a virtual view of the scene.

2. **(Original)** A method as recited in claim 1, wherein the virtual view of the scene is substantially free from aliasing.

3. **(Original)** A method as recited in claim 1, wherein each of the coherent layers has a corresponding background layer.

4. **(Original)** A method as recited in claim 1, wherein the plurality of frames correspond to different images of the scene.

5. **(Original)** A method as recited in claim 1, wherein the refining is initiated by a user.

6. **(Original)** A method as recited in claim 1, wherein each layer of the scene has a corresponding plane equation to represent a local geometry of that layer.

7. **(Original)** A method as recited in claim 1, further comprising rendering the coherent layers with a corresponding background layer to present the virtual view of the scene.

8. **(Original)** A method as recited in claim 1, further comprising

rendering the coherent layers with a corresponding background layer to present the virtual view of the scene, wherein the background layer is provided by combining a plurality of under-segmented regions.

**9. (Currently Amended)** One or more computer-storagereadable media comprising ~~storing~~ computer executable instructions that, when executed, perform the method as recited in claim 1.

**10. (Withdrawn)** A method comprising:

- segmenting a light field into one or more coherent layers;
- propagating boundaries of the coherent layers across a plurality of frames corresponding to the light field;
- providing a background layer for the coherent layers; and
- rendering the coherent layers with the background layer to provide a pop-up light field.

**11. (Withdrawn)** A method as recited in claim 10, further comprising refining the coherent layers.

**12. (Withdrawn)** A method as recited in claim 10, further comprising determining uncertain regions between the coherent layers and the background layer.

**13. (Withdrawn)** A method as recited in claim 10, further comprising applying alpha matting to the coherent layers.

**14. (Withdrawn)** A method as recited in claim 10, wherein the background layer is provided by combining a plurality of under-segmented regions.

**15. (Withdrawn)** A method as recited in claim 10, wherein each of the coherent layers have a background layer.

**16. (Withdrawn)** A method as recited in claim 10, further comprising applying a coherent feathering function to the coherent layer boundaries.

**17. (Withdrawn)** A method as recited in claim 10, wherein a plurality of polygons represent the coherent layer boundaries.

**18. (Withdrawn)** A method as recited in claim 10, wherein the rendering utilizes texture-mapped triangles.

**19. (Withdrawn)** A method as recited in claim 10, wherein the rendering sequentially combines the coherent layers and the background by alpha blending.

**20. (Withdrawn)** A method as recited in claim 10, wherein the plurality of frames correspond to different images of the light field.

**21. (Withdrawn)** A method as recited in claim 10, wherein the pop-up light field is substantially free from aliasing.

**22. (Withdrawn)** One or more computer-readable media storing computer executable instructions that, when executed, perform the method as recited in claim 10.

**23. (Withdrawn)** A method comprising:  
determining a plurality of texture-mapped triangles for each layer of  
a scene;

binding a plurality of textures to each of the plurality of triangles;

assigning a blending ratio to each vertex of the plurality of triangles; and  
blending the textures of each of the plurality of triangles to present a  
virtual view of the scene.

**24. (Withdrawn)** A method as recited in claim 23, wherein at least three textures are bound to each of the plurality of triangles.

**25. (Withdrawn)** A method as recited in claim 23, wherein the blending ratio is assigned as a primary color on each vertex.

**26. (Withdrawn)** A method as recited in claim 23, wherein the blending ratio is assigned as a primary color on each vertex and the primary color is interpolated on each of the plurality of triangles.

**27. (Withdrawn)** A method as recited in claim 23, wherein the virtual view of the scene is substantially free from aliasing.

**28. (Withdrawn)** A method as recited in claim 23, wherein the blending utilizes a blending equation.

**29. (Withdrawn)** A method as recited in claim 23, wherein the blending utilizes a blending equation stored in a pixel shader of a graphics hardware device.

**30. (Currently Amended)** A user interface comprising:  
a layer pop-up module to allow a user to define one or more coherent layers corresponding to a scene;  
a refinement module to refine the coherent layers in real time; and  
a rendering module to render the coherent layers to present a virtual view of the scene.

**31. (Original)** A user interface as recited in claim 30, wherein a plurality of polygons represent boundaries of the coherent layers.

**32. (Original)** A user interface as recited in claim 30, wherein the virtual view of the scene is substantially free from aliasing.

**33. (Original)** A user interface as recited in claim 30, further comprising a background construction module to provide a background layer corresponding to the coherent layers.

**34. (Original)** A user interface as recited in claim 30, further comprising a background construction module to provide a background layer corresponding to the coherent layers, wherein the background layer is provided by removing the coherent layers from a key frame corresponding to the scene.

**35. (Original)** A system comprising:

- a layer pop-up module to split a scene into one or more coherent layers;
- a boundary propagation module to propagate boundaries of the coherent layers across a plurality of frames corresponding to the scene; and
- a refinement module to refine the splitting to present a virtual view of the scene.

**36. (Original)** A system as recited in claim 35, wherein the virtual view of the scene is substantially free from aliasing.

**37. (Original)** A system as recited in claim 35, wherein the plurality of frames correspond to different images of the scene.

**38. (Original)** A system as recited in claim 35, wherein the refinement module is activated by a user.



**39. (Original)** A system as recited in claim 35, wherein each layer of the scene has a corresponding plane equation to represent a local geometry of that layer.

**40. (Original)** A system as recited in claim 35, further comprising a rendering module to render the coherent layers with a corresponding background layer to present the virtual view of the scene.

**41. (Original)** A system as recited in claim 35, further comprising a rendering module to render the coherent layers with a corresponding background layer to present the virtual view of the scene, wherein the background layer is provided by combining a plurality of under-segmented regions.

**42. (Original)** A system as recited in claim 35, further comprising a memory module to store instructions.

**43. (Original)** A system as recited in claim 35, further comprising one or more processing units to execute a plurality of stored instructions on one or more memory modules coupled to the processors.

**44. (Currently Amended)** One or more computer-storagereadable media comprising having instructions stored thereon that, when executed, direct a machine to perform acts comprising:

splitting a scene into one or more coherent layers, wherein;

each coherent layer of the scene has a corresponding plane equation to represent a local geometry of that coherent layer; and

the one or more coherent layers in combination represent a single plane of the scene;

propagating boundaries of the coherent layers across a plurality of frames corresponding to the scene, wherein the plurality of frames correspond to different images of the scene; and

refining the splitting to present a virtual view of the scene, wherein the refining is;

initiated by a user;

allows the user to select at least one of the coherent layers;

allows the user to refine the corresponding plane equation of the selected coherent layer; and

allows the user to inspect and adjust the rendering quality of the selected coherent layer in real time;

rendering the coherent layers with a corresponding background layer to present the virtual view of the scene, wherein the background layer is provided by combining a plurality of under-segmented regions.

**45. (Original)** A computer-readable media as recited in claim 44, wherein the virtual view of the scene is substantially free from aliasing.

**46. (Canceled)**

**47. (Canceled)**

**48. (Withdrawn)** One or more computer-readable media having instructions stored thereon that, when executed, direct a machine to perform acts comprising:

determining a plurality of texture-mapped triangles for each layer of a scene;

binding a plurality of textures to each of the plurality of triangles;

assigning a blending ratio to each vertex of the plurality of triangles;

and blending the textures of each of the plurality of triangles to present a virtual view of the scene.

**49. (Withdrawn)** A computer-readable media as recited in claim 48, wherein at least three textures are bound to each of the plurality of triangles.

**50. (Withdrawn)** A computer-readable media as recited in claim 48, wherein the blending ratio is assigned as a primary color on each vertex.

**51. (Withdrawn)** A computer-readable media as recited in claim 48, wherein the blending ratio is assigned as a primary color on each vertex and the primary color is interpolated on each of the plurality of triangles.

**52. (Withdrawn)** A computer-readable media as recited in claim 48, wherein the virtual view of the scene is substantially free from aliasing.

**53. (Withdrawn)** A computer-readable media as recited in claim 48, wherein the blending utilizes a blending equation.

**54. (Withdrawn)** A computer-readable media as recited in claim 48, wherein the blending utilizes a blending equation stored in a pixel shader of a graphics hardware device.

**55. (Original)** An apparatus comprising:  
means for splitting a scene into one or more coherent layers;  
means for propagating boundaries of the coherent layers across a plurality of frames corresponding to the scene; and  
means for refining the splitting to present a virtual view of the scene.

**56. (Original)** An apparatus as recited in claim 55, further comprising  
means for rendering the coherent layers with a corresponding background layer to present the virtual view of the scene.

**57. (Original)** An apparatus as recited in claim 55, further comprising  
means for rendering the coherent layers with a corresponding background layer to present the virtual view of the scene, wherein the background layer is provided by combining a plurality of under-segmented regions.

**58. (New)** A method as recited in claim 1, wherein the scene represents a set of images.

**59. (New)** A computer-readable media as recited in claim 44, wherein the scene represents a set of images.